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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/594,288	06/15/2000	Mike Chan	1999-0221A	9116

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EXAMINER	
YAO, KWANG BIN	

ART UNIT	PAPER NUMBER
2667	5

DATE MAILED: 03/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/594,288	Applicant(s) CHAN ET AL.	
	Examiner Kwang B. Yao	Art Unit 2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 7-10, 13-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz et al. (US 6,343,086) in view of Spinney et al. (US 6,426,943).

Katz et al. discloses a system for connecting telephony equipment to computer network equipment comprising the following features: regarding claim 1, as depicted in Fig. 2, network processor (1,2,3,4) that integrates networking and DSP functions, the network processor having a serial input port (1), a serial output port and a network interface (4); an output device (Internet Gateway) coupled to the serial output port; an input device (7, 8, 9) coupled to the serial input port; and a network (6) coupled to the network interface, wherein the packet telephony appliance implements a unified buffering mechanism that provides zero-copy data movement (Abstract, column 4, lines 47-56); regarding claim 2, wherein the network processor is a Euphony network processor (column 3, line 35 to column 4, line 62); regarding claim 3, wherein the packet telephony appliance is a Euphony ATM telephone EAT (column 4, line 51-53); regarding claim 4, wherein the network is an ATM network, and wherein the network interface is an ATM network interface (column 4, line 51-53); regarding claim 7, wherein the packet telephony appliance runs a real-time operating system (column 5, lines 22-24); regarding claim 8, wherein

the unified buffering mechanism is Iobufs (column 15, lines 5-15); regarding claim 13; loading and executing a real-time single address space (column 12, line 66) operating system kernel; implementing a uniform buffering mechanism across all modules in the packet telephony appliance, the uniform buffering mechanism being a zero-copy mechanism for storing and passing data (Abstract, column 4, lines 47-56); regarding claim 15, wherein the step of implementing the uniform buffering mechanism includes the step of implementing Iobufs (column 15, lines 5-15); regarding claim 21, integrating networking and DSP functions into a network processor (column 3, line 35 to column 4, line 62); implementing a uniform buffering mechanism across all modules in the packet telephony appliance, the uniform buffering mechanism being a zero-copy mechanism for storing and passing data (Abstract, column 4, lines 47-56). Katz et al. does not disclose the following features: regarding claim 1, wherein the packet telephony appliance implements an event-based mechanism for intra-appliance communication; regarding claim 9, wherein the event-based mechanism for intra-appliance communication is an Event Exchange inter-module communication mechanism; regarding claim 10, wherein the unified buffering mechanism and the event-based mechanism provide a scheme for integrated event/data delivery that accommodates new protocols and services; regarding claim 13, and implementing an event-based mechanism for communicating between the modules; regarding claim 14, wherein the step of load and executing includes the step of loading and executing a VxWorks kernel; regarding claim 16, the step of implementing the event-based mechanism includes the step of implementing an Event Exchange inter-module communication mechanism; regarding claim 17, wherein the step of implementing the event-based mechanism includes the steps of creating a sending port and a receiving port for each module, initializing the

sending ports and the receiving ports before use, setting a queue size of the sending ports to control flow, posting events to the sending port of a sending module, and delivering posted events to the receiving port of a receiving module; regarding claim 18, wherein the step of implementing the event-based mechanism further includes the steps of processing delivered events and issuing an acknowledgment; regarding claim 19, wherein the step of implementing the event-based mechanism includes the step of processing events at a priority of a receiving thread; regarding claim 20, wherein the step of implementing the event-based mechanism includes decoupling a priority of a sender from a priority at which an event is processed; regarding claim 21, implementing an event-based mechanism for communicating between the modules.

Spinney et al. discloses a system comprising the following features: as depicted in Figs. 3, 5, 5A, 5B, and described in column 6, line 15 to column 7, line 65, regarding claim 1, wherein the packet telephony appliance implements an event-based mechanism (QM 30, State Machine) for intra-appliance communication; regarding claim 9, wherein the event-based mechanism (QM 30, State Machine) for intra-appliance communication is an Event Exchange inter-module communication mechanism; regarding claim 10, wherein the unified buffering mechanism and the event-based mechanism provide a scheme for integrated event/data delivery that accommodates new protocols (Fig. 8B) and services; regarding claim 13, and implementing an event-based mechanism for communicating between the modules; regarding claim 14, wherein the step of load and executing includes the step of loading and executing a VxWorks kernel; regarding claim 16, the step of implementing the event-based mechanism(QM 30, State Machine) includes the step of implementing an Event Exchange inter-module communication

mechanism; regarding claim 17, wherein the step of implementing the event-based mechanism includes the steps of creating a sending port (24') and a receiving port (15') for each module, initializing the sending ports (24') and the receiving ports (15') before use, setting (66') a queue size of the sending ports to control flow, posting events to the sending port of a sending module, and delivering posted events to the receiving port of a receiving module; regarding claim 18, wherein the step of implementing the event-based mechanism further includes the steps of processing (QM 30) delivered events and issuing an acknowledgment; regarding claim 19, wherein the step of implementing (QM 30) the event-based mechanism includes the step of processing events at a priority of a receiving thread; regarding claim 20, wherein the step of implementing the event-based mechanism includes decoupling a priority of a sender from a priority at which an event is processed (Abstract); regarding claim 21, implementing an event-based mechanism for communicating between the modules. See column 6, line 15 to column 7, line 65. It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Katz et al., by using the features, as taught by Spinney et al., in order to provide an efficient and effective data transmission. See Spinney et al., column 2, lines 37-40.

3. Claims 5, 6, 11, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz et al. (US 6,343,086) in view of Spinney et al. (US 6,426,943) as applied to claim 1 above, and further in view of Kubler et al. (US 5,726,984).

Katz et al. and Spinney et al. disclose the claimed limitations above. Katz et al. and Spinney et al. do not disclose the following features: regarding claim 5, wherein the output device includes at least one of a handset speaker, a case mounted speaker and an external

speaker; regarding claim 6, wherein the input device includes at least one of a handset microphone, a case mounted microphone and an external microphone; regarding claim 11, RAM, Flash memory and a keypad coupled to the network processor via a memory and peripheral bus; regarding claim 12, a plurality of RS232 serial ports coupled to the network processor via the memory and peripheral bus. Kubler et al. discloses a packet based communication system comprising the following features: regarding claim 5, wherein the output device includes at least one of a handset speaker, a case mounted speaker and an external speaker (Fig. 58, 5807); regarding claim 6, wherein the input device includes at least one of a handset microphone, a case mounted microphone and an external microphone (Fig. 58, 5805); regarding claim 11, RAM, Flash memory (Fig. 48, 4813) and a keypad coupled to the network processor via a memory and peripheral bus; regarding claim 12, a plurality of RS232 serial ports (Fig. 1, 15) coupled to the network processor via the memory and peripheral bus. See column 8, line 49; column 75, lines 15-18. It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Katz et al. and Spinney et al., by using the features, as taught by Kubler et al., in order to provide an efficient data communication system.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yim et al. (US 6,580,727) discloses an access multiplexer.

Jolitz et al. (US 6,173,333) discloses a network accelerator.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang B. Yao whose telephone number is 703-308-7583. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H Pham can be reached on 703-305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KWANG BIN YAO
PRIMARY EXAMINER

Kwang B. Yao
Feb. 24, 2004